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HANDBOOK

of

"Better Built Trees"

MARSHALL NURSERIES

OMAHA, NEBRASKA

ARLINGTON, NEBRASKA

DENVER, COLORADO

FOREWARD

This Handbook is made purposely for the Marshallman -- to give him facts about the stock we grow -- not sale-talks, but facts for sale talks.

The Marshallman should be able to describe the appearance of his products and explain their benefits. Also where to place trees and how to space them.

Our main nurseries are located at Arlington, Nebraska, 30 miles from Omaha, near the Missouri river and reference to heights and spacings is based mainly on this point.

ITEMS NOT LISTED

Do not take orders for items not listed in our price-list. Do not assume we can fill an unquoted item; first obtain permission.

Some items advertised in competitors' publications are not suitable for our territory. Some new items have not been in our trialgrounds long enough for a sufficient test. Some have been dropped for improved varieties. When you have an inquiry for a certain item and wonder why it is not listed, ask the office. Ask questions to improve your knowledge.

Customers occasionally ask us to secure foreign items for them. We seldom do this. We may be able to tell them where they can obtain it. We believe this conservative policy is an asset in maintaining our reputation for Better Built Trees.

BETTER BUILT TREES

Since 1887 Marshalls have been growing a superior product which we call "Better Built Trees". We say we "build" trees. To produce the best trees, the words "growing" or "nursing" do not suffice. We are constantly striving to produce the best trees. This involves considerable work that is not done in the production of cheap trees. Several precise procedures are necessary to produce good tops and good roots.

"Better Built Trees" are the most economical to plant. "Better Built Trees" show a quicker and more satisfactory result. The planter wants all of his newly transplanted trees to start growth. He wants results. He plants trees for the benefits of fruit, shelter or beauty.

We have many customers who testify to their satisfaction with "Better Built Trees". Many of them tell about the loss of time and poor results some one has had by planting cheap and inferior nursery stock and they say "Better Built Trees" are more economical to buy. "Better Built Trees" -- means the best in quality.

BETTER BUILT ROOTS -- Yes, we build roots.

Our nurseries have a wonderful soil for root development. With wide spacing in the rows, sufficient room is provided to grow a complete, balanced and vigorous root system -- so important for every tree.

On grafted trees, the understocks are selected with hardiness, sturdiness, and a quick-to-grow quality in mind. "Better Built Trees" have a reputation for excellent fibrous roots.

BETTER BUILT TOPS -- We really build good tops.

By early training, constant care and proper pruning, a better top is built in young Marshall trees. Timely pruning in the nurseries is necessary to produce balanced and good looking tops. Also, the tops as well as the roots must be full of vitality. "Better Built Trees" are more economical to buy.

SELECTED STRAINS -- IMPROVED VARIETIES -- GRAFTED TYPES

Marshalls maintain testing grounds to ascertain the hardiness and growing qualities of new varieties.

We have new strains of fruit stock. For example, the Dark Red Jonathon is a strain of Jonathon. A bud was taken from a sport growing on a Jonathon which produced a superior dark red apple. This bud was grafted on a northern apple seedling. All the apple trees grafted with this bud strain produce apples like the improved apple on the original sport. We also have improved varieties of other fruits.

We have new varieties of shade and ornamental trees. For example, we have a Vase Elm. We selected a vase-shaped Elm with an ideal top and good limb structure. We grafted buds from this tree on seedling Elms to produce a quantity of Vase Elm which will all grow exactly like the original tree. Elm trees grown from seed produce trees of varying characteristics. With a grafted tree, we know what the future will be.

We have new varieties of evergreens. For example, we have selected a variety of Colorado Juniper with a good green foliage and a compact growing top. We gave it the name Cologreen Juniper. Colorado Junipers grown from seed will vary in shape, color and texture. Grafted trees are like the original tree -- it is a part of the original tree. "Better Built Trees" from Marshalls are up-to-date varieties.

TRAINED MEN FOR DIFFERENT TASKS

Marshall's have over 500 acres planted in nursery stock with a large number of men required for different tasks. Their employees are specialists and experienced nurserymen tend the different kinds of stock. Visit our fields and we believe you will say you never saw a better looking nursery. You will see "Better Built Trees".

THE MARSHALLMAN

We call our representative, the "Marshallman". He is a specialist trained to help our customers with the selection of trees and plants for their particular needs. He is informed as to varieties best adapted for different localities, positions and requirements. He also helps with suggestions on how to plant -- after care of plantings -- how to water -- how to cultivate -- how to trim -- how to spray -- how to protect.

Productive and attractive plants are the desired and gratifying results obtained by intelligent and efficient maintenance. Good plantings are an asset to the customer, to the community and are living testimonials to "Better Built Trees".

LANDSCAPINGS WITH PERSONALITY

Marshall's have trained and experienced landscape designers. They make plans for country and city home grounds, for parks, cemeteries, schools and churches; for small lots as well as large. No job is too small or too large for Marshall's to handle.

Marshall's do not make mail-order sketches; but individual jobs are tailored to fit. A Marshallman must be on the ground to see the buildings, the existing trees, grades and type of soil. He wants to know the owner's wishes and needs. A landscape man can help with practical suggestions for the location of buildings, driveways, walks and the construction of grades. The owner and landscape man agree on a general understanding of what may be done before a sketch is drawn.

Then, in the owner's home, he presents this plan describing the appearance and explaining the benefits of the proposed picture. He explains how he has adapted his particular ideas to the situation. All phases of this proposed picture may be discussed. All questions can be answered on the spot. The plan should fit the owner's wishes and needs, fit his property and surroundings, and his pocketbook.

The company requires that all landscape sketches for orders of \$100.00 or more be sent into the office. Marshall's have a reputation for being tops as a landscape firm in this middle west and they desire to keep this reputation. They train the local Marshallmen to make small sketches. These local men are expected to ask for assistance on large problems from our more experienced landscape designers.

With such a policy, Marshall's are able to create plantings that are attractive, harmonious, individual, different, up-to-date, and practical -- Landscapings with Personality.

WHAT IS AN OUTDOOR LIVINGROOM?

In the summer and fall we like to go out into the woods to be away from people and noise -- all by ourselves -- and commune with nature. We enjoy the beauty of the surroundings, the shelter of the trees, the outdoor air and songs of the birds. Even the thought of such an outing comes to us in pleasant day dreams.

When we build an outdoor livingroom in our home grounds we are establishing this same kind of spot in a smaller way and it is more accessible. We can use it more often. Different members of the family can use it any time they choose. The children can use it by themselves. The lady of the house can have an afternoon tea party. The husband and wife can stroll out together when they choose. You can enjoy a steak fry in the yard or an evening meal on the patio or porch.

We also can plan to place this outdoor room so that it is tied to the house; enjoyed from the house, the porch or patio, the windows of the living room, breakfast nook or other rooms. We enjoy this picture from the house at all times of the year. A pretty picture can be provided even for the winter. At that time we remember the pleasures of other summers and we dream and hope for the approach of Spring.

To build such a room we select a certain area, a back yard or the side yard, and plant a border of shrubs to make a wall of green to enclose an open intimate area. We screen out the surroundings and provide a little world of our own.

Some furniture in an outdoor livingroom is necessary. Even a small back yard can have a bench or arbor seat. Mrs. Jones can say to her friends, "Let's go out into the garden -- or outdoor living room." They can sit in the open air in a sheltered spot and visit. The guests may remark about a certain shrub or ask about a certain tree as they would ask about things inside the house. They enjoy your home. So we have an outdoor room for the enjoyment of our friends as well as ourselves. "It isn't a home till its planted." This slogan is very true. The outdoor living room is a part of the home. We have a real satisfaction of pride of ownership in the beauty and benefits of an outdoor living room.

DECIDUOUS SHADE AND ORNAMENTAL TREES

BENEFITS FROM PLANTING TREES

Beauty, shelter, protection, profit, and pride of ownership -- which provides health, wealth and happiness.

Beauty of form, bloom, foliage and fruit
 Background
 Framing
 Screening undersirable views
 Complement masses of shrub borders
 Add an appearance of depth to a lawn area
 Climate control for man, animals, crops and fowl--summer & winter
 Wind protection for man, animals, crops and fowl
 Erosion control--save the soil
 Lumber
 Firewood
 Fruit for birds
 Increase value of property
 Community improvement--a progressive looking community
 It is not a home until it's planted

SPACING OF TREES

Some cities have ordinances for the spacing of street trees. Some of the towns near here are designating spacings of 40 to 50 feet for the main shade trees. There have been trees planted too close together. In the absence of an ordinance we believe in recommending a minimum distance of 35 feet for near here. As we go west from here, near central Nebraska we suggest a 30 foot minimum. In western Nebraska and Wyoming perhaps a 25 foot minimum. As we travel west in our territory most trees grow to a shorter ultimate height. A rule of thumb for a liberal spacing of any deciduous tree is a distance apart equal to ultimate height.

Of course, for different effects, different spacing are used for which no general suggestions can be given.

The Marshallman may obtain information from local observation, local experienced planters or from the Marshall office for specific territories.

ASH, GREEN (*Fraxinus lanceolata*)

A medium growing shade tree. A broad, open, shapely tree with a rounded, oblong head of slender, spreading branches. Foliage yellow-green in the Spring; lustrous deep, bright green in the Summer and tan-brown in the Autumn. 40 feet high here. Used mainly in Colorado and Wyoming for street and yard use. Usual spacing there 25 to 30 ft.

ASH, SEEDLESS

A grafted tree. No seed. Original tree from Utah. This variety used considerably in the Mountain States. Becoming very popular.

BIRCH (General description. See varieties below.)

Used singly or in clumps in the open yard as specimens. Avoid competition of shrubs, other trees, windy locations and sun reflection from buildings. Prefers a moist soil.

CUTLEAF WEEPING BIRCH (*Betula pendula gracilis*)

An elegant erect tree with slender, drooping branches and cutleaf foliage. White bark. The bark of the small nursery trees is not white but turns white after three or four years growth. Grows up to 40 feet high, space 30 feet apart.

EUROPEAN WHITE BIRCH (*Betula pendula*)

Tree has white bark, but this variety does not weep. Preferred over the cutleaf variety for natural effects.

BOXELDER (*Acer negundo*)

We grow this variety in sizes only for windbreak plantings. An excellent nurse tree for other species. Grows with great rapidity for a few years but wood is of inferior quality. Propagates readily from seeds and has been a very popular small native tree for planting on the prairies.

BUCKTHORN (*Rhamnus cathartica*)

Fairly dense foliage with branches and foliage to the ground. Foliage bright green in the Spring, deep green in the Summer up to late Autumn. Greenish flowers in May of no ornamental value. Black berries persist into the winter. Used mainly for box hedges north and west of here. Occasionally used as a tall natural hedge. Occasionally as a tree in a shrub border to break the sky line. Very hardy. Grows 10 to 15 feet high here with spread of 10 feet.

COTTONWOOD, COMMON (*Populus deltoides*)

We grow this variety in sizes only for windbreak plantings. A tree that is upright and pyramidal in youth, becoming tall, high-branching and wide spreading with rugged branches. Open and irregular with age.

COTTONWOOD, MARSHALL

A cottonwood without the cotton. Sometimes called Marshall Poplar. Used on large properties where a tree of this size will not overawe or be a detriment to other plantings. Not available in small sizes for windbreaks. Do not sell, if not listed.

CRAB, FLOWERING (*Malus*: in variety)

We are raising several varieties of different shapes of trees and different colors of bloom. Very popular and desirable for all sizes of properties, even the small yards. See pricelist for current list of varieties we are growing. Our slender types are becoming very popular for screening and are replacing Volga Poplar for this use.

ELM (General description. See varieties below.)

Most everybody is familiar with an Elm tree, though they may not know about the different varieties. We grow and sell a larger number of Elm trees than any other variety of shade trees. Used for street trees, open lawns, and for windbreaks. All of our Elm, except Chinese Elm, is affected by European Elm Scale in southwestern Nebraska and Colorado.

AMERICAN ELM (*Ulmus americana*)

A tall trunk breaking into large arching and drooping branches. Very wide-spreading and variable in form. Grown from seed, the trees vary somewhat in shape. We grow this variety in sizes for windbreak planting and in larger sizes for street and yard use. Space 35 to 40 feet apart.

CHINESE ELM (*Ulmus pumila*)

This is really Siberian Elm and much more desirable than the true Chinese Elm. Used in semi-arid sections for a shade tree, and generally for windbreaks. Does not like wet soil, because a continued growth in the late Fall is subject to winter injury. Fast grower.

HYBRID ELM

A grafted variety from a selected tree of American and Chinese Elm parentage. It is hardier than Chinese and a faster grower than American Elm. We have these trees in sizes for street and yard use, but do not have them in small sizes for windbreaks.

LAKE CITY ELM (*Ulmus*: Lake City)

A grafted tree that is a Moline type. Originated in Minnesota so it is hardier than Moline Elm for our north and west territory.

MOLINE ELM (*Ulmus*: Moline)

A grafted tree. Tops grow somewhat upright to provide a narrow top, which makes it suitable for street and small property planting. Foliage similar to the American Elm, but somewhat larger. Smooth glossy bark when young. Trees grow all alike similar to the mother tree from which it was originally grafted. Original tree, Moline, Illinois. We space 25 to 40 feet apart here. Not suited for western Nebraska, Colorado, Wyoming and the Dakotas.

VASE ELM (*Ulmus urni*)

This is a grafted American Elm. The parent tree has a compact top which is not too slender or too wide--a good specimen top. By grafting, we know we can have a top just like the mother tree--and all trees alike. Used for street and hard plantings. Space 35 to 40 feet here. An ideal top not too wide--not too narrow. A tree of beauty and majesty.

HACKBERRY (*Celtis occidentalis*)

Resembles Elm somewhat; foliage more pointed and a lighter green; bark thick and rough; a symmetrical grower, grows anywhere and is especially suited for dry soils. Used for shade in streets and yards. We space 35 to 40 feet apart here. Newly planted trees require severe cutting back of limbs and careful planting.

HAWTHORN, PLUMLEAF (*Crataegus prunifolia*)

Grows 8 to 10 feet high and almost as wide. Grows in all our territory. Slow. Difficult to transplant. Very compact. Has the globular stratified appearance of most of the varieties of Hawthorns. Leaf is glossy green; practically immune from cedar rust and most free of this Fungus as any variety we know.

HONEYLOCUST, COMMON (*Gleditsia triacanthos*)

Forms a tall, round topped tree. Very thorny. Small leaflet foliage Hardy. Used in windbreaks. Very open tree provides stratified shadows on the ground, the lower branches drooping almost vertically. Thornless varieties are replacing.

HONEYLOCUST, STEVENS (*Gleditsia triacanthos inermis*)

A grafted variety which is thornless. Our own selection. A shade tree without a dense shade. Used as a street and ornamental shade tree. Becoming more popular Hardy. We space 35 to 40 feet apart here. Not available in small sizes for windbreaks. Valuable for light shade. Foliage texture fine. Habit of growth spreading. Growth rate quick. General adaptation. Height 50 feet. Spread 30 feet.

LOCUST, MORaine (*Gleditsia*: Moraine - Pat. No.836)

A new patented, grafted variety which is thornless, podless and free of seed. rapid grower, hardy and readily adaptable to soil, weather and city conditions. Narrow leaves permits healthy growth of grass Gives harmonious effect to present type dwellings. Originated in Ohio. See our special folder.

LINDEN (General description. See varieties below.)

Linden is an important tree and the sale of it is increasing. protect newly planted trees from sun scald by wrapping the trunks. Sometimes called Basswood.

AMERICAN LINDEN (*Tilia americana*)

A rapid growing, tall, stately tree with a short trunk and low-hung, wide-spreading branches, the lower drooping down and then up, round-topped; casts a dense shade; more open with age. Bright green, large heart-shaped leaves, fading to yellow in the Autumn. Clusters of small fragrant yellow flowers. A shade and ornamental tree. Will grow in any of our territory. A fairly rapid grower. We space 35 to 40 feet apart.

CORDATA LINDEN (*Tilia cordata*)

The correct common name is Little Leaf European Linden. We call it Cordata Linden for short Very showy tree but not hardy for most of our territory--only south and east. An oval, dense head of ascending, spreading branches. The trunk is apt to be crooked and the tree has a tendency to form heavy side limbs. Growth rate medium

CRIMEAN LINDEN (*Tilia euchlora*)

Buds have been taken from older trees of this variety on the Redmond home in Fremont, Nebraska, and this tree is often called Redmond Linden. Has smaller leaves than American Linden. Red buds. Our Crimean Linden are all grafted trees. It is supposed to be a hybrid Linden crossed between Cordata Linden and Caucasian Linden

ORD LINDEN

We saw an outstanding good-looking compact American Linden growing in Ord Nebraska. We took buds from this tree and are now producing trees just like the original. We call it Ord Linden. We space 35 to 40 feet apart here. We like it.

PYRAMIDAL AMERICAN LINDEN (*Tilia pyramidalis*)

This variety is a cross. Leaves are large, but its European blood gives it its pyramidal effect. This characteristic is distinctive and can be depended upon because of the necessity of grafting. Some older trees are growing near here and it seems that this variety is increasing in favor.

MAPLE (General description. See varieties below.)

All the Maple trees like moist soil and do not like semi-arid conditions.

BLAIR MAPLE (*Acer dasycarpum*: Blair)

We found a Silver Maple growing in Blair, Nebraska that had a very compact top, with the limbs growing up obliquely making this top more narrow than the average Silver Maple. Also the limb crotches are stronger. We propagated this tree and call it Blair Maple. An excellent tree for a moderately fast grower. Good seller. We space 35 to 40 feet apart here. Where a Maple will grow, we generally prefer it to a Chinese Elm for a shade tree.

CRIMSON KING MAPLE (*Acer*: Crimson King - Pat. No. 735)

A new purple foliage Norway Maple which retains its purple foliage longer into the summer than Schwedler. Do not believe it is as hardy as Schwedler and should be used only south and east from here as a speculation. A new grafted tree.

SCHWEDLER MAPLE (*Acer platanoides*: Schwedler)

A variety of Norway Maple similar in every respect excepting it has a reddish-purple foliage in the Spring that turns to bronzy-green in the summer and golden yellow in the Fall. Used occasionally as a specimen tree here and east of us, also does well in parts of Colorado. We space 35 to 40 feet apart here. Grows slow; likes moist soil. Protect trunks of young trees from sun scald.

SILVER MAPLE (*Acer dasycarpum*)

Also called Soft Maple or Common Maple. Rapid grower. Should not be confused with Silver Poplar.

SUGAR MAPLE (*Acer saccharum*)

A hard Maple--not a fast grower. Very compact top. A broad, stout tree with many ascending branches forming a dense, widely ovate head, round-topped. Excellent green foliage that colors to a reddish-yellow in the Autumn. Coloring varies in different locations and may not start coloring until a few years after transplanting. Used for a street and ornamental tree in Iowa and for only a short distance west of the Missouri river.

MOUNTAIN ASH (*Sorbus aucuparia*)

A semi-formal tree with a slender trunk and erect ascending branches forming an ovate or spherical head, never densely shady. Blooms in the Spring small white in terminal corymbs. Season of fruit, late summer, persisting; small crimson fruits with a peculiar, acid flavor, eaten by birds in the winter. Foliage fine, texture, light bright green. Height 20 to 30 feet. Spread 15 feet. Plant in the open, free of tree and shrub roots for a longer life. Protect young trees from sun scald by wrapping the trunks as it has a smooth bark.

MULBERRY, RUSSIAN (*Morus tatarica*)

Plant near cherry trees to attract birds, if space allows. Used for windbreaks. Wood good for posts.

OAK (General description. See varieties on next page.)

It is difficult to transplant bareroot Oak trees larger than we list. Must be planted and maintained with care. Slow growing.

PIN OAK (*Quercus palustris*)

A symmetrical, pyramidal tree with a straight, erect stem extending through the tree; branches short, sinuously horizontal with many short bristly twigs; lower branches drooping, upper ascending; becoming more obovate and irregular in outline with age. Summer foliage, yellow green to bright green; autumn, bronze to scarlet. Foliage hangs on through the winter. Fastest growing Oak. Likes rich moist soil. Eastern Nebraska and east. Best in open lawn. Will not tolerate an alkaline soil. Space 30 to 40 feet apart here. Ultimate height 50 feet, spread 30 feet.

RED OAK (*Quercus rubra*)

Slow growing. Will grow the farthest west in our territory of any Oak we have. Trees grow eventually large and wide. An erect, high-branching tree with a few large, spreading branches and slender branchlets, the crown narrow in youth, becoming broader, round-topped and symmetrical. Color of foliage deep green in the summer; autumn, dark red to red-bronze, brilliant in sunshine at a distance. Best in open lawn. Does not like alkaline soil but more tolerant than Pin or Scarlet. We space 35 to 50 feet apart here. Growth slow. Ultimate height 60 feet, spread 40 feet.

SCARLET OAK (*Quercus coccinea*)

A slender symmetrical tree with an open, oblong, round-topped crown, the branches gradually spreading and curving. Foliage in summer, bright, glossy green; Autumn, glossy red-bronze to scarlet. We space 30 to 40 feet apart here. Does not like alkaline soil. Likes rich moist soil. Growth slow. Ultimate height 50 feet, spread 30 feet.

PAGODATREE, JAPANESE (*Sophora japonica*)

Belongs to the Pea family. Decorative pinnate foliage. Long panicles of yellowish-white flowers--one half inch long in loose panicles fifteen inches long followed by pods. Grows round head. Blooms late summer. Growth slow so best in open. Use for variety only. Height 15 to 20 feet, spread 15 feet in time here.

PLUM (General description. See varieties below.)

This family will grow in any of our territory.

CISTENA CHERRY (*Prunus: Cistena*)

A bush type purple leaf plum, perhaps more reddish-purple than Newport. Being a sandcherry it is not adapted for the more moist conditions of eastern Nebraska and east.

DOUBLE FLOWERING PLUM (*Prunus triloba plena*)

Low, bushy, shrub-like tree, producing double pink, flowers. Sometimes miscalled the Flowering Almond Tree. Ultimate height and spread here about 5 feet.

MAYDAY TREE (*Prunus padus commutata*)

Correct common name is Harbinger Birdcherry. Dense growing oval top with good green foliage. Growth rate slow. Will grow in most situations. Height 20 to 25 feet, spread of 15 feet. Use for variety as a small tree. Fragrant white flowers in loose drooping cluster followed by black fruit. A close relative of the Chokecherry. Hardy.

MANCHU CHERRY (*Prunus tomentosa*)

Also called Nanking Cherry. A broad-spreading, densely twiggy, bush-like tree, becoming more open, irregular, and picturesque in age; a mound of small pinkish-white blossoms in early spring followed by small edible red cherries. Can be used as a specimen tree. Principal use is for thickets for conservation and natural plantings. Grows about 6 to 10 feet high here and 10 feet wide. May be maintained smaller as a shrub by trimming. Plant several together for better pollination for fruit production. Spacing depends on the benefits desired. Sun or shade.

MANCHU CHERRY No. 63

A budded variety of Manchu Cherry with a superior fruit which may be used for culinary purposes. Grows 8 to 12 feet high and 6 to 9 feet wide here.

MANCHU CHERRY No. 41

A budded variety of Manchu Cherry somewhat smaller than No. 63 with red fruit of about the same size and ripens about the same time. This variety grows 6 to 10 feet high and 4 to 6 feet wide here.

NEWPORT PLUM (*Prunus: Newport*)

Grows upright. Purpleleaf foliage with red tips all summer. Used as an ornament in shrub borders or open lawn. Grows in all our territory. Occasionally bears fruit which is not an important benefit. Small dull pink flower of no importance.

POPLAR, BOLES (*Populus: bolleana*)

Tree grows like Lombardy with leaves like Silver Poplar. Blights in most of our territory.

POPLAR, VOLGA (*Populus: volga*)

Also called Lombardy Poplar. Slender, upright, fast growing tree used mainly for screen purposes. For screening space 5 to 6 feet apart. Not long-lived. We suggest other varieties of trees for screening when permitted to do so, however many customers prefer Poplars and order them.

REDBUD, AMERICAN (*Cercis canadensis*)

Sometimes called Judas tree. A small tree with a broad, slightly rounded head of spreading, angular branches, the trunk dividing low into several strongly ascending parts. Suitable here in the east one-third of Nebraska and along the southern border and south and east. Semi-hardy west of here and in exposed situations. Grows native in the shelter of the woods in Missouri extending into the corner of southeast Nebraska. Small blood-red flowers appear in the Spring before the foliage. Green heart-shaped leaves. Height 15 to 20 feet.

RUSSIAN OLIVE (*Eleagnus angustifolia*)

Low spreading tree about 25 feet tall and 15 to 20 feet spread. Silver green foliage. Small, yellow, fragrant flowers in June. Grows anywhere in our territory particularly west. Does not like wet soil. Used some in shrub borders on larger properties. Used for windbreak. Grows quick.

WALNUT, BLACK (*Juglans nigra*)

The common Black Walnut. Grows slow. Nice to have a few trees on farm properties.

WILLOW, NIOBE (*Salix: niobe*)

The hardiest variety of Weeping Willow. Has attractive yellow twigs for winter effect. Grows 30 feet high here in moist soil. Takes up too much space for a fifty foot lot.

WILLOW, PUSSY (*Salix caprea*)

Raised mainly to procure bouquets of the attractive buds or catkins which are on the stems in early Spring. Plant in an out-of-sight location where each Spring all the limbs can be cut for catkins. More limbs will grow to be cut the following Spring, and easy to reach. Avoid the production of a trunk and grow like a shrub.

DO NOT TAKE ORDERS FOR THESE TREES

CATALPA, COMMON (*Catalpa speciosa*)

We have better trees for windbreak. Flowers and seed beans objectionable on lawns.

CATALPA, UMBRELLA (*Catalpa speciosa*)

A freak tree that has had its day.

CHOCHECHERRY (*Prunus virginiana*)

We do not grow. Can furnish. Seldom used in lawns. Occasionally for natural thickets.

DOGWOOD, FLOWERING (*Cornus florida*)

We do not grow. The tree will grow in Iowa and a short distance west but does not bloom. As we come into Missouri we will see bloom on this variety.

GINGHKO

We cannot grow this tree in our nurseries here because it is not hardy. A speculative tree here. Does better east and south of here. Very slow. Very little demand. When few trees are needed, other varieties are better.

GOLDENRAINTREE (*Koelreuteria paniculata*)

We do not grow. Speculative here.

HAWTHORN, COCKSPUR (*Crataegus crussgalli*)

Hard to transplant, slow grower. Use Flowering Crab.

HAZELNUT (*Corylus americana*)

We do not grow. Can furnish. Seldom used in lawns. Occasionally for natural thickets.

HORSECHESTNUT

Grows very slow. Hard to transplant.

MAPLE, NORWAY (*Acer platanoides*)

Does not do well here. Grows better east of here. Suggest Sugar Maple instead. Both are hard Maple.

MULBERRY, WEEPING

A freak tree seldom called for.

POPLAR, SILVER (*Populus alba*)

Incorrectly called Silver Maple. Seldom used as suckers badly in lawns. Can furnish.

SYCAMORE

Blights in most of our territory.

TULIPTREE

Same comment as for Ginkgo, except grows faster.

EVERGREENS

COLORADO JUNIPER GRAFTED UPRIGHT VARIETIES

Marshall's evergreens are grafted and each variety is identical to its parent in appearance. Colorado Juniper does not like shady locations. There is not much change in the color of the winter foliage from the summer foliage. Determine the intended future height to gauge the proper spacing.

COLOGREEN JUNIPER (*Juniperus scopulorum*: Cologreen)

A full of life green foliage even through the winter, with very little discoloration. Our own selection. Limbs grow obliquely up to afford unusually compact trees. Can be used as a natural tree about 14 feet high and 6 feet wide. Usually sheared for a desired height of 3 to 8 feet.

MARSHALL JUNIPER (*Juniperus scopulorum*: Marshall)

A grafted upright Colorado Juniper. Outstanding silver-blue foliage. Not as compact as Hill's Silver. Will grow naturally about 15 feet high and 8 feet wide. Usually sheared for a desired height of 3 to 8 feet.

HILLS SILVER JUNIPER (*Juniperus scopulorum*: Hills Silver)

A grafted upright Colorado Juniper. Fine texture, good silver-blue foliage. Would grow into a good natural tree about 15 feet high and 8 feet wide. Usually sheared for a desired height of 3 to 8 feet.

SUTHERLAND JUNIPER (*Juniperus scopulorum*: Sutherland)

Blue green neutral colored foliage -- does not discolor in the winter. Very hardy. Grows slower than other upright Junipers. Limbs grow obliquely up to afford unusually compact trees.

VIRGINIA JUNIPER GRAFTED UPRIGHT VARIETIES

Marshall's evergreens are grafted and each variety is identical to its parent in appearance. The seedling Virginia Juniper browns considerably in the winter but our grafted varieties do not although there is a slight change. They discolor less in partial shade. Will grow in partial shade or any location. Determine the intended height to gauge the proper spacing.

BURK JUNIPER (*Juniperus virginiana burki*)

Seldom allow to grow naturally. Generally kept sheared at the heights ranging from 3 feet to 10 feet. Good silver-green foliage with slight dulling of the color during the winter.

CANAERT JUNIPER (*Juniperus virginiana canaerti*)

This is mainly used for a semi-natural tree -- occasionally for a natural. Other varieties are easier to maintain for completely filled sheared trees.

CYPRESS JUNIPER (*Juniperus virginiana cupressifolia*)

This could be called an improved Canaert Juniper as it grows more compact. Very vivid light green foliage.

DUNDEE JUNIPER (*Juniperus virginiana*: Dundee)

May be grown naturally to be perhaps the most compact for a natural tree of any of the Virginia family. Grows more slender than most varieties just like the original trees selection. Generally used for a sheared upright tree, 3 to 8 feet high.

MANHATTAN JUNIPER (*Juniperus virginiana*: Manhattan)

Blue-green foliage. Usually used for a sheared upright tree of 4 to 8 feet.

DWARF JUNIPER

NATURAL PFITZER JUNIPER (*Juniperus chinensis pfitzeriana*)

This is a very popular hardy low bush variety. Used singly and in groups under windows or where evergreen shrubs of a height of from 2 to 4 feet is desired. If let to grow 6 to 8 feet wide and 2 to 3 feet high may be spaced 6 feet apart. May be maintained by trimming 4 to 6 feet wide and 1½ to 2 feet high and spaced 4 to 5 feet apart. Foliage good rich blue-green. Our bushes of this variety are grown more well-furnished than most Pfitzer Junipers of the same size raised by other nurseries. Grows good in sun and will stand some shade better than any other Juniper. Suitable for all of our territory.

STAKED PFITZER JUNIPER

We stake the natural Pfitzer Juniper in the nurseries to obtain the taller immediate height of about 2 feet, which makes it desirable for many situations, for example, the higher foundations of older houses. Same spacing as for natural Pfitzer Juniper. These may be contained by trimming.

COMPACT PFITZER JUNIPER (*Juniperus pfitzeriana compacta*)

A variety of the natural Pfitzer which does not grow as tall and as wide. Slow grower. Very compact. Grows about 1½ feet high and 4 feet wide and spaced 3 feet apart.

PARK JUNIPER (*Juniperus scopulorum parki*)

A bush Colorado Juniper which will grow about 2 feet high and 6 to 8 feet wide. If let to grow naturally, space 6 feet apart. Usually maintained by trimming 4 to 6 feet wide and spaced 4 to 5 feet apart. Foliage resembles Hills Silver Juniper both as to color and texture. Does not like shady locations.

SAVIN JUNIPER (*Juniperus sabina*)

Grows about 2 to 3 feet tall and 4 to 6 feet wide. Prefers sunny locations. Grows best west of here. We generally space 4 to 5 feet apart. When maintained smaller by annual trimming, may be spaced closer together.

LEE'S GOLDTIP JUNIPER (*Juniperus elegantissima*)

May be grown as an upright natural tree or with the top cut out to resemble a high staked Pfitzer Juniper. We grow them in the bush form, like staked Pfitzer Juniper and space 4 to 5 feet apart. Ends of foliage have Goldtips.

CREeping JUNIPER

ANDORRA JUNIPER (*Juniperus horizontalis plumosa*)

Blue-green foliage which turns reddish brown in the winter. Grows about 9 to 12 inches high and 6 to 8 feet wide. Can be maintained 4 to 6 feet wide and spaced 4 to 5 feet apart. Usually planted in groups.

BLACK HILLS CREEPING JUNIPER (*Juniperus horizontalis*: Black Hills)

Native of Black Hills. Foliage good green summer and winter. Grows prostrate to the ground -- well furnished -- 4 to 8 feet wide, and about 6 inches high. Usually maintained by trimming 3 to 5 feet wide and spaced 3 to 4 feet apart. Good for bank and grave coverings.

DWARF JAPANESE JUNIPER (*Juniperus chinensis japonica nana*)

Foliage similar to its larger growing parent. Will grow 9 to 12 inches high and 4 to 5 feet wide. Can be maintained by trimming 2½ to 3 feet wide and spaced 2½ to 3 feet apart.

JAPANESE JUNIPER (*Juniperus chinensis japonica*)

This creeping prostrate Juniper is often listed *Juniperus procumbens*. It is closely related to the Pfitzer Juniper. It has a green foliage with a silver cast. Will grow about 12 to 18 inches high and 10 feet wide. Usually maintained smaller by trimming and spaces about 3½ to 4 feet apart.

SARGENT JUNIPER

Good green foliage. Grows about the same height and width as Andorra Juniper and spaced the same.

FIR**CONCOLOR FIR (*Abies concolor*)**

The white Fir that grows native in the Rockies. After the trees attain a height of six feet or more they become more well furnished. very ornamental to grow singly or in groups in the open law. Usually placed in open yards where a large evergreen can grow. Grows 20 to 30 feet high and 10 to 15 feet wide. Foliage should be allowed to grow to the ground. Will grow in any of our territory.

DOUGLAS FIR (*Pseudotsuga taxifolia*)

Grows pyramidal similar to Concolor Fir and the Spruces. Good green foliage. Grows high, but not as correspondingly wide as Spruce. Grows faster. Will grow 30 to 50 feet high and 12 to 15 feet wide. Not truly a Fir.

SPRUCE

(Very ornamental to grow singly or in groups in the open lawn.)

COLORADO SPRUCE (*Picea pungens*)

Grows native in the Rockies, often referred to as the Blue Spruce. however should not be sold as Blue Spruce as this variety is a variation of green-blue. Grows 20 to 30 feet high and 10 to 15 feet wide. Foliage should be allowed to grow to the ground.

COLORADO SHINER SPRUCE (*Picea pungens glauca*)

We select the bluest of the Colorado Spruce by tagging them in June and we call them Shiners. When a customer wants Blue Spruce, one or more, he will be satisfied not only with one but a group of Shiners as really being all blue. Those that are not selected for Shiners we call Colorado Spruce to prevent a misunderstanding.

BLACK HILLS SPRUCE (*Picea glauca densata*)

We grow a few of these trees but less than in former years. Refer to list. Green foliage, slightly blue. Grows 20 to 30 feet high and 10 to 15 feet wide. Very susceptible to red spider.

PINE**AUSTRIAN PINE (*Pinus nigra*)**

For large yards and windbreaks. Good long needle evergreen foliage, 4 to 5 inches long. Very hardy. Foliage may be cut off to show trunk or grown to ground. Tops well furnished even in young trees. Grows 30 to 40 feet high and 20 feet wide.

PINION PINE (*Pinus cembroides edulis*)

A dwarf Rocky Mountain Pine occasionally used in landscape plantings because of its heavy texture foliage and because the tree does not grow large. Grows very compact. A short needle Pine, needles are about 2 to 3 inches long. Grows 15 to 20 feet high and 6 to 10 feet wide. Seldom used in eastern Nebraska, Iowa or the territory with more rainfall.

YEW

We grow a few Yew trees under lath. They do not like either our summer or winter sun. They like rich moist soil. They do not like winds. They prefer spring planting. Used mainly here and east in semi-shady locations. Do not place yew in sunny positions.

CAPITATA YEW (*taxus cuspidata capitata*)

This is the Upright Japanese Yew. Used for sheared upright pyramidal trees usually maintained by trimming 4 to 6 feet high and good width at the base.

CUSPIDATA YEW (*Taxus cuspidata*)

This is the Spreading Japanese Yew. Used for a bush evergreen usually maintained by trimming 4 to 6 feet wide and 2 to 3 feet high.

SHELTER BELTS AND WINDBREAKS

Different varieties are used in various parts of our territory. Refer to pricelist for varieties that are available. For further information consult your local county agent, Federal and State bulletins.

PINE

In row 12 to 20 feet apart, decreasing from here to west. Rows 16 to 20 feet apart, increasing from here to west. We grow the Austrian Pine.

DOUGLAS FIR

In row, 10 to 12 feet apart with rows 16 feet apart.

DECIDUOUS TREES

Space in row 10 to 16 feet apart and rows 10 to 16 feet apart. some owners thin out trees later on, some do not. Space 25 to 30 feet from any evergreens.

SHRUBS

Such as Honeysuckle for snow fence. Naturally on north and west sides of windbreaks. 16 to 20 feet from evergreens. 20 to 25 feet from deciduous trees. Space 5 to 6 feet apart in the row.

DO NOT TAKE ORDERS FOR THESE EVERGREENS

BULL PINE (*Pinus ponderosa*)

This Western Yellow Pine grows native in our western territory, but we have quit raising it. The Austrian Pine is very similar, just as hardy and more desirable.

SCOTCH PINE (*Pinus sylvestris*)

This Pine likes moisture so it is not suitable for most of our territory. Also in the eastern part of our territory where it will grow, Austrian Pine is preferred.

WHITE PINE (*Pinus strobus*)

We do not have a sufficient demand for this tree for eastern and northern part of our territory where this tree will grow. Foliage subject to summer burn here and south.

NORWAY SPRUCE

We do not have a sufficient demand for this tree for the eastern and northern part of our territory where this tree will grow.

HEMLOCK

We do not have a sufficient demand for this tree for the eastern and northern part of our territory where this tree will grow.

ARBORVITAE, CHINESE

This Arborvitae grows in Kansas, but we believe we do not need it for there with the other nice evergreens we have. As it is planted farther north into Nebraska it winter kills.

ARBORVITAE, AMERICAN

This tree grows in Minnesota and we are at the south edge of its territory where it will not survive some of our hotter summers.

CAUTIONARY REMARKS

Many evergreens fail to grow because some customers do not apply enough water at one time to reach all the roots. Another serious fault is to allow a hard topcrust soil to exist about a tree. A top mulch is helpful in the absence of thorough cultivation during the summer. A top mulch applied for winter protection for newly planted trees is good insurance. In the winter people do not water trees and drying out occurs from cracks in the topsoil. Daily watering can be more harmful than insufficient watering.

The Marshallman who helps his customer after the sale has very few replacements.

ORNAMENTAL SHRUBS

Shrubs are used for foundation plantings and for borders at the edge of the lawn. Border plantings in front lawns are important. They are needed in combination with the house (foundation) planting to make the complete picture of the front or public area. Every picture needs a frame and a background.

For border plantings, particularly a wall of green for an Outdoor Living Room, it is important to choose sturdy and compact shrubs with good green foliage. For example; the Honeysuckles, Chinese Lilac, Peking Cotoneaster and Vanhoutte Spirea. They make for good mass, good body, and good background for a border. Such plants as Viburnum and Euonymus are too slow. The slow growing and showy shrubs may be placed on the inside tier of a shrub border. We emphasize that foliage is more important than bloom in building a border.

We do not recommend a rule of thumb for spacing of shrubs--because the spacing depends on the height at which we plan to maintain them. In this Handbook we are giving information for spacing each variety accordingly.

We wish to caution that when planting two different varieties side by side, the spacing should be as much or more as given for the variety with the wider space recommendation. Too close spacing of one variety together is not as serious an error as the crowding between different varieties.

On smaller properties, it is necessary to maintain many shrubs by trimming to control their size so they may continue to fit the proper proportion for a harmonious setting. Determine the height a shrub will ultimately be maintained, then space accordingly. Advise your customer later how to maintain the intended picture.

ALTHEA (*Hibiscus syriacus*)

Also called Rose of Sharon. Used mainly in southern Nebraska and Kansas as it is not hardy here and north. Upright narrow habit of growth. Height 8 to 12 feet, spread 6 to 10 feet. May be maintained smaller. Order red, pink or purple. Most orders are for red.

ARROWWOOD

(See *Viburnum* for listing)

BARBERRY, JAPANESE (*Berberis thunbergii*)

A very dense rounded shrub, broader than tall, compact numerous branches. Foliage good to the ground. Small green leaves throughout the summer turn to a rich coppery red color in the fall. Inconspicuous yellow flowers late May produce a heavy crop of small attractive red berries in the fall which hang on throughout most of the winter. Shrub compact appearance in the winter, with good looking texture of reddish twigs. Used singly or several in a group. Shade or sun. Foundation, facer in borders and for hedges. Usually maintained by one annual trimming 2 to 3 feet high and spaced 3 to 4 feet apart. If an ultimate height of 4 to 5 feet is contemplated, space 4 feet apart. An excellent shrub, effective at all seasons.

BARBERRY MENTOR

Similar to Japanese Barberry, except grows larger, has larger leaves, and foliage hangs on later. It is semi-hardy in most of our territory.

BARBERRY, REDLEAF (*Berberis thunbergii atropurpurea*)

A redleaf variety. Should be planted in full sun. Shrub does not grow as thrifty as its parent and will appreciate not being crowded. Usually maintained 2 to 3 feet high and spaced 3 to 4 feet apart.

BEAUTYBUSH (*Kolkwitzia amabilis*)

Compact growing shrub with soft pink flowers in May and June. Semi-hardy here. Does better south of here. Grows about 6 to 8 feet high and slightly wider here, and much lower in Colorado. Space 5 to 7 feet apart. Singly or in groups. Occasionally one bush is used for variety.

CHOKEBERRY, BRILLIANT (*Aronia arbutifolia brilliantissima*)

A loosely erect shrub with deep green foliage that turns rich crimson in the fall. Slender branching stems, open and round-topped. White inconspicuous flowers in May -- June. Brilliant red berries in the fall. Sun or partial shade. If let to grow naturally 5 to 8 feet high, spread 3 to 5 feet, space 4 to 5 feet apart. If maintained by trimming 3 to 5 feet high, space 3 to 4 feet apart. Keep down the suckers. Use singly or in groups. Try some.

CORALBERRY, COMMON (*Symphoricarpos vulgaris*)

Good grayish-green foliage. Pretty magenta-colored berries in the fall. Inconspicuous flowers. Good foliage and fruit. Very similar to the native buckbrush. Ultimate height and width 3 to 5 feet. Usually maintained by annual trimming 2 to 3 feet high and spaced 2 to 3 feet apart. Seldom used singly, generally in groups of 3 to 5 or more. Used mainly for small shrub groups in unusually shady locations or among tree roots.

CORALBERRY, CHENAULT (*Symphoricarpos vulgaris chenaulti*)

A sport variety of *Symph. vulgaris*. More refined foliage than its parent. Planted mainly because of its pretty green foliage and because it is low growing. Berries interesting but not a talking point as they are not as fully red as the parent. Tips of branches freeze most winters and occasionally to the ground in Colorado and Wyoming. Usually maintained 2 to 3 feet high and spaced 3 feet apart. Generally 3 or more shrubs in a group. Sun or shade. Slight tip freezing not a liability as we generally wish to trim anyway to keep low and bushy.

COTONEASTER, PEKING (*Cotoneaster acutifolia*)

An upright compact shrub but not stiff looking. Excellent glossy green foliage that turns yellow suffused with red in the fall. Inconspicuous small pink flowers followed by interesting black berries. Very hardy. Will grow in any of our territory. Sun or semi-shade. Singly, preferably in groups or hedges. Grows 5 to 10 feet high, and 6 to 8 feet spread, and when this height is contemplated, space about 4 to 5 feet apart. In most cases it is maintained 4 to 6 feet high and space 4 feet apart. An excellent shrub.

COTONEASTER, REDBERRY (General description. See varieties below.)

We have tried *Cotoneaster integerrima* (European Cotoneaster). It is hardy and has red berries but we do not like its habit of growth or its foliage. The Peking Cotoneaster, the popular black berry variety we have been handling, has an outstanding foliage. Do not expect the same effect in any red berry variety. The foliage can be good even though not as good.

At present we are propagating the following three varieties of red berry Cotoneaster: *Divaricata*, *Multiflora*, and *Soongarica*.

COTONEASTER, DIVARICATA (Common name Spreading Cotoneaster)

Grows 4 to 6 feet high and wide. May be trained somewhat lower by trimming. Good green foliage with red berries. Habit of growth makes it useful. We do not know how hardy it is in all of our territory.

COTONEASTER, MULTIFLORA

Grows somewhat like *Cotoneaster Acutifolia* in habit of growth only taller. Red berries. Hardy in all our territory.

COTONEASTER, SOONGARICA

Common name Sungari Redbead Cotoneaster. Leaves oval. New with us and can't give you much information now.

CRANBERRYBUSH
(See *Viburnum*)

CURRENT, ALPINE (*Ribes alpinum*)

A densely twiggy, rounded shrub, erect in youth, arching more and more with age, with foliage to the ground. Texture, medium fine. Foliage bright green and at late autumn briefly yellowish. Small yellow flowers in May no talking point. Red berries early summer, not very freely produced. An excellent, dense foliage mass. Admirable in shady places and for undergrowth. May be controlled by trimming. Used as a specimen, in groups or for a sheared box hedge. Prefers shade and may summer burn in open positions here and south. Grows 4 to 5 feet wide and high. Space in groups 4 feet apart.

DOGWOOD, YELLOWTWIG (*Cornus stolonifera flaviramea*)

Used occasionally in foreground of large border plantings mainly for the winter color of its yellow bark. Prefers semi-shady location and moist soil. Grows 5 to 8 feet high. Space 5 to 6 feet apart. To keep within bounds on a small property, cut to within 3 to 5 inches of the ground during the winter every year or two.

DOGWOOD, REDTWIG (*Cornus stolonifera*)

Used occasionally in foreground of large border plantings mainly for the winter color of its red bark stems. Prefers semi-shady location and moist soil. Grows 5 to 8 feet high. Space 5 to 6 feet apart. To keep within bounds on a small property, cut to within 3 to 5 inches of the ground during the winter every year or two.

EUONYMUS, DWARF WINGED (*Euonymus alatus compacta*)

A dwarf variety of *Euonymus alatus* which is gaining in favor. Grows 5 to 8 feet high. Space 4 to 5 feet apart.

EUONYMUS, EUROPEA (*Euonymus europeus*)

We grow this variety in shrub form. Grows naturally to 20 feet. Can be maintained as a shrub 6 to 10 feet. Good green, fine toothed leaves with good coloring in the fall. Pink berries. Leaves not quite as wide and a little longer than common lilac. Generally spaced about 6 feet apart for shrub groups.

EUONYMUS, WINGED (*Euonymus alatus*)

Shrub grows tall but very slowly. A flat-topped, rectangular, stratified shrub, regular in outline, usually broader than high, its stiff branches almost horizontal. Small good green foliage turns to a beautiful rose-red color in the fall so that it is sometimes called firebush. Twigs have an interesting winged or cork bark. Sun or semi-shade. Grows 9 to 10 feet tall and wide in time. Usually maintained 6 to 8 feet high, when it is spaced 5 to 6 feet apart. Singly or in groups. When placed in border walls, use in front row.

ELDER, GOLDEN (*Sambucus aurea*)

Large, fast growing shrub. Grows 6 to 8 feet high and wide. Flat white flowers followed by black berries. Golden colored foliage. Seldom on small properties. Space 7 to 8 feet apart and from other shrubs.

FLOWERING ALMOND (*Prunus glandulosa rosea*)

We handle only the double pink variety of Flowering Almond. Blooms in May. Texture of foliage fine. Stiff upright open habit of growth. An old favorite. Height and spread about 3 feet. Space 3 feet apart. Grafted on plum roots, which occasionally grow up and if not eliminated soon enough will destroy the main top. Cut such shoots off below the surface of the ground.

FORSYTHIA, BORDER

The complete common name is Showy Border Forsythia. Foliage fair green. Used mainly for its early golden bell blooms which appear early spring before the leaves. Should not be crowded or placed in the background with other shrubs. Best alone or facing other shrubs, where it can be seen without going out into the yard. Does not bloom good here, only occasionally. Better south of here. Grows 6 to 10 feet high and wide. Usually maintained about 6 feet high and spaced 5 to 6 feet apart.

FORSYTHIA, SPRING GLORY

Large pale yellow bell flowers completely cover the shrub before the foliage appears in the Spring.

This new variety has more flowers than older varieties. A real harbinger of Spring. Foliage fair green. Do not crowd it. Forsythia blooms good here two years out of five -- better south of here. Place in position so it can be easily seen from walks or windows. Grows 6 to 10 feet high and wide; usually maintained smaller -- 6 feet high and spaced 5 to 6 feet apart.

HONEYSUCKLE, BRIDE (*Lonicera grandiflora rosea*)

A variety of Tatarian Honeysuckle, with blooms that are larger and a clearer rose pink than the older varieties. Blooms in late May and is followed by interesting red berries. Excellent green foliage. Compact growing shrub. Will grow in most any location sun or shade -- and grows better than most shrubs near tree roots. Grows 8 to 12 feet high with a spread of about 6 feet, but usually maintained 6 to 8 feet high when it is spaced 5 to 6 feet apart. Used singly -- in groups -- and for natural untrimmed hedges.

HONEYSUCKLE, DWARF (*Lonicera compacta nana*)

A new variety that we have just started to propagate. Grows about 4 feet high. Good foliage.

HONEYSUCKLE, ZABEL (*Lonicera zabeli*)

We think of the use of Zabel Honeysuckle in the same manner as Bride Honeysuckle. It is a newer variety. Does not grow as high and wide. Foliage a good green with a bluish cast. Many small light red flowers, followed by red berries. Grows in similar situations and for the positions and uses as Bride. Grows 6 to 10 feet high and spaced 5 to 6 feet apart. An excellent shrub, singly, in groups, or natural untrimmed hedges. Very popular.

HYDRANGEA, PEEGEE (*Hydrangea paniculata grandiflora*)

Shrub prefers moist soil and semi-shade. Noted for its flowers and not its foliage. Grows here and east of here. As we go west from here does less better. Will grow 4 to 6 feet high. We generally place them in groups of 3 to 6 plants and maintain them at a height of 3 to 5 feet when we space them 3 to 4 feet apart. They may be maintained at a lower height by winter trimming -- cut all the last years wood off to one bud. Best to use one group only. Best not to use PeeGee Hydrangea and Snowhill Hydrangea in the same picture or view. Large white cone-shape heads with white flowers bloom mid-summer and turn to pink-bronze in the early fall. Flowers may be picked in the pink stage for winter bouquets.

HYDRANGEA, SNOWHILL (*Hydrangea arborescens grandiflora*)

Large, heart-shaped leaves. Large white flat blooms in July that turns slightly green. Very compact. Will grow in most all of our territory in semi-shade. Likes moist soil. Generally 1 to 3 plants in one place, when used. Ultimate height and spread about 4 feet. Usually maintained by trimming 3 to 4 feet high and spaced 4 feet apart.

JETBEAD (*Rhodotyus scandens*)

A rounded, open shrub, loosely branched, with ascending, spreading and somewhat arching branches, more dense when in foliage. Bright green leaves. Semi-hardy north and west of here. Compact, good foliage. Grows good in shade and among tree roots. South of here will grow 4 to 6 feet high and wide. Here and most of our territory with annual trimming can be maintained 3 to 5 feet high and spaced 3 to 4 feet apart. Not used much on small properties.

LILAC, CHINESE (*Syringa chinensis*)

A cross of Common Lilac and Persian Lilac. Excellent green foliage which grows to the ground. Does not sprout. Blooms the second year after planting. Foliage, wood and blooms finer texture and not as stiff as the Common Lilac, making it an excellent shrub for borders. We raise the *Syringa chinensis rubra* which is a selected pinkish red variety. We do not have the dirty pink or pale white varieties such as occasionally seen. The flowers are borne on willowy twigs (not stiff) in late May which adds to its charm in a border. The flowers are good for cutting but not to be compared with the superior flowers of the French Lilac. Grows 8 to 12 feet high, with a spread of 6 to 8 feet but usually maintained by trimming immediately after blooming to hold them down to bushes about 6 to 8 feet high and then spaced 5 to 6 feet apart -- unless they are planted in one line to grow natural when they may be spaced 3 to 5 feet apart. An excellent shrub. Can be used alone as a specimen -- together in one line alone, in front or rear row of shrub borders.

LILAC, COMMON (*Syringa vulgaris*)

Well known shrub seldom used today because of better varieties. We have the purple variety. Suckers. Chinese Lilac has better foliage. Named French Lilac has better flowers. Blooms mid-May. Height 12 to 15 feet and spread 6 to 8 feet. Space 5 to 7 feet apart.

LILAC, NAMED FRENCH VARIETIES

Refer to Platebook and pricelist for varieties. The foliage is similar to the Common Lilac. They are grafted and may occasionally sprout, but these can be easily removed. The flowers are large and showy in May. Excellent for cutting bouquets. Should be planted in positions as small trees on small properties and allowed to develop without much pruning. Grow 8 to 12 feet high and spread about 6 to 8 feet. Space 8 to 12 feet or more apart here. Will bloom two to five years after planting. French Lilacs as shrubs in a shrub border on small properties grow large and coarse by comparison with other shrubs and tend to overpower the rest of the border.

MOCKORANGE, JUNO (*Philadelphus erecta*)

A compact, rounded shrub, finely and densely twiggy. Texture finer than Sweet Mockorange. A white but not outstanding flower. Used because of its habit of growth and foliage. Hardy. Ultimate height and spread 5 to 6 feet. Space 4 to 5 feet apart.

MOCKORANGE, MINNESOTA SNOWFLAKE - Pat. No. 538

A new double flowering Mockorange. Grows 8 to 10 feet high. Space 4 to 6 feet apart. Used for variety. We favor Virginal over Snowflake.

MOCKORANGE, SWEET (*Philadelphus coronarius*)

A compact, rounded shrub, finely and densely twiggy. This is the old fashioned Mockorange that grandmother miscalled *Syringa*. Fragrant white flowers in June. Very hardy and will grow in most any situation anywhere in our territory. This shrub is inclined to grow leggy. Bright green foliage in the spring, deep green in the summer and dark-green becoming yellow-green in the autumn. A large, rounded shrub with stiff, ascending branches arching with age, fairly dense. Texture moderately coarse. Avoid dusty places, as dust shows on foliage. Grows 8 to 10 feet high and spaced 5 to 6 feet apart. Sun or shade.

MOCKORANGE, VIRGINAL (*Philadelphus virginialis*)

This is the Mockorange with the outstanding semi-double white blooms. A mass of bloom in June with intermittent flowers afterwards. Upright slender sparsely foliated shrub that does not lend itself to be included in a mass border for a wall of green. It is naturally gawky. It can be made a little more compact by pinching out the tips of the lanky shoots when they are actively growing. The mass of flowers is very showy. Place in the foreground of other shrubs. We suggest to use it against the sides and rear of houses in foundation plantings where the building affords a background. Used there singly to add variety. Generally maintained at a height of about 6 feet high and 4 feet spread. When in groups space 3 to 4 feet apart.

NINEBARK, GOLDEN (*Physocarpus opulifolius aurea*)

Used mainly in Colorado and Wyoming. Grows 6 to 8 feet high. May be controlled by trimming as a smaller shrub. Space about 4 feet apart.

NINEBARK, DWARF (*Physocarpus monogymus*)

A low compact shrub with good green foliage. Grows 4 to 5 feet high, with a spread of about 3 feet. Space 3 to 4 feet apart. Hardy in all our territory. May be used singly, in groups, or for trimmed hedges. Flowers white in late May not a talking point. A good compact shrub with good foliage.

PEATREE, SIBERIAN (*Caragana arborescens*)

Can be cut off to grow in shrub form. Very hardy. Used mainly for variety in Colorado and Wyoming. Silver-green foliage. Small yellow flowers in May are not a talking point. Used some in wind-breaks. Height 6 to 12 feet, spread 6 feet.

PRIVET, AMUR (*Ligustrum amurense*)

Ultimate height 6 to 10 feet and width about 4 to 6 feet when planted east and south of here. Compact growing but inclined to be leggy on shrubs left to grow naturally. Foliage bright green in the spring changing to a deep green in the summer and up to late autumn. Used mostly for box hedges south and east of here. Tops will freeze back some winters here. Seldom used in shrub borders. White flowers in June not a talking point.

PRIVET, ENGLISH (*Ligustrum vulgare*)

Ultimate height 6 to 10 feet and spread 4 to 6 feet, a stout, much-branched shrub, irregularly spreading and dense. Foliage bright green in the spring changing to a deep green in the summer and up to late autumn. Used as a shrub and for hedges west of here. Blights here and east where there is more rainfall. May be controlled for a lower shrub than the ultimate height. White flowers in June no talking point. When used as a shrub in a group, space a distance apart equal to about 80% of the proposed maintained height.

PRIVET, LODENSE (*Ligustrum vulgare hanum*)

A dwarf growing variety of European Privet which can be used as a shrub or for a low clipped hedge in Colorado, Wyoming and western Nebraska.

QUINCE, CRIMSON BEAUTY FLOWERING (*Chaenomeles: Crimson Beauty*)

A grafted upright growing flowering quince with red flowers. Good green foliage. Blooms in April before the foliage appears. Ultimate height 4 to 6 feet, spread about 6 feet. May be maintained 3 to 4 feet high by trimming immediately after flowering. Space about 4 feet apart. Sun and semi-shade. Likes moist soil. Used singly and in groups -- only a few for variety.

QUINCE, MARSHALL FLOWERING (*Chaenomeles: Marshall*)

Another variety of red flowering quince of our own selection. Very similar in habit of growth to crimson Beauty Flowering Quince with a different red flower. Bloom in April-

SNOWBALL

(See *Viburnum*)

SNOWBERRY (*Symphoricarpos albus*)

Does best in western Nebraska and Colorado. Subject to mildew here. Blue-green foliage. Season of fruit, early fall; terminal clusters of large, white fruits which persist white into early winter before turning brown. Valued for foliage and fruit and the ability to endure shade. Ultimate height and width 3 to 4 feet, but usually maintained on small properties by annual trimming 2 to 3 feet high and spaced 2 to 3 feet apart. Used singly or in groups.

SPIREA, ANTHONY WATERER (*Spiraea: Anthony waterer*)

Low growing everblooming pink Spirea. Several flat pink flowers 3 to 6 inches wide. Prefers partial shade. Best in groups of 3, 5 or more. Grows 2 to 3 feet high and wide, suggest trimming to within 3 inches of the ground each winter. (March). This provides for a more compact bush. Space 2 to 3 feet apart. Foliage occasionally variegated with some cream edges. Flowers brighter color than Froebel Spirea.

SPIREA, FROEBEL (*Spiraea froebeli*)

A low, broad, flat-topped shrub, densely twiggy with erect branches. Blooms late spring or early summer to fall; dense corymbs of small, bluish-pink flowers. Resembles A. W. Spirea. More compact, slightly large, better green foliage with slightly reddish cast. Flowers not a talking point; main value is that it is a good dwarf shrub with good foliage. Ultimate height and spread 2½ to 3 feet. Space 2½ to 3 feet apart. Used considerably in groups of 2, 4 or more in foundation planting and for facers in borders.

SPIREA, BILLIARD (*Spiraea billiardi*)

Upright shrub growing 3 to 5 feet high. During July and August light rose flowers are produced in upright growing panicles 4 to 5 inches long. Plant inclined to grow ragged unless cut down each year or two during the winter. Generally used one as a specimen plant. Sun or partial shade. Space 3 to 4 feet apart if in groups.

SPIREA, GARLAND (*Spiraea arguta*)

Has small white blooms before the foliage appears in the Spring, not a talking point. Foliage slightly yellowish-green. Grows compact. Yellows in alkaline soil. Used sparingly. Grows 4 to 5 feet high and wide usually spaced 4 feet. Usually maintained as low compact shrub 3 or 4 feet high and spaced 3 or 4 feet apart. Will grow 4 or 6 feet high when it is spaced 4 or 5 feet apart.

SPIREA, VANHOUTTE (*Spiraea vanhouttei*)

Commonly called Bridalwreath. A vase-shaped shrub, very compact, round-topped, with arching branches recurving to the ground, making a broad mound. Texture medium-fine. Foliage light green, whitened by flowers in the Spring; bluish green in the summer; bluish green in the Autumn, barely yellowed before dropping with some orange to orange-brown late. Very showy snow-white blooms covers the bush in May, compact, live, medium-fine texture twig appearance in the winter. Very hardy. Some used in most every job because of its height, compactness, sturdiness and good neutral green foliage. It is a dependable filler in a shrub border. On most properties it is maintained by annual trimming after flowering for a height of 3 to 5 feet when it is spaced 4 feet apart. Will grow 6 to 8 feet high and 6 feet wide when it is spaced 5 feet apart.

SUMAC, COMMON (*Rhus glabra*)

This is our native sumac, seldom used on home grounds, but for natural plantings in groups. Grows 6 to 8 feet high, spread 4 to 5 feet. Space 3 to 4 feet apart for a thicket. Suckers.

SUMAC, SHREDDED (*Rhus typhina laciniata*)

Grows like Staghorn Sumac except has cutleaf foliage. Grows about twice as high as Common Sumac. Its height, foliage, trunk and architecture, particularly in the winter, shows a unique twisted branch effect. Good green foliage which turns pretty pinkish-red in the fall. It suckers -- keep this in mind for the location when you use it. Generally place in small groups of 3 to 5 on large properties. Too open, for screening. Grows 8 to 12 feet high. Space 5 to 7 feet apart.

TAMARISK KASHGAR (*Tamarix hispida*)

Tall shrub with fine asparagus-like delicate and airy foliage. of the several varieties of Tamarisk this is one of the hardiest and has a good pink bloom in July. Fine texture of foliage and not generally considered good for screening. Space other plants 6 to 8 feet away from it. If in shrub groups space 6 feet apart. Plant in open - avoid tree roots. A pronounced texture accent. We generally think of it as a tree or a high leggy shrub 12 to 15 feet high or as a shrub maintained bushy 6 to 8 feet high. Advise your customer that it probably will be very late in leafing out -- that it should be cut back to 4 inches of the ground as soon as planted and mounded with soil.

VIBURNUM FAMILY

The following common names are listed under Viburnum instead of alphabetically scattered through the entire list of shrubs. They are outstanding shrubs singly and in groups. Grow slow so should generally have the background of a building or of faster growing shrubs. They grow compact, to the ground and do not require facer shrubs. They prefer shade but will grow in the open. May be used singly or in groups. Many older plantings show evidence of poor judgment in too close spacing of Viburnums. Require very little trimming until it is desired to check the height

ARROWWOOD (*Viburnum dentatum*)

White flat bloom in June followed by black berries. Foliage rich glossy green all summer. Good fall color. Ultimate height variable about 6 feet, more in very favorable locations. Spread about the same. Space 6 to 7 feet apart. Grows best in semi-shade.

CRANBERRYBUSH (*Viburnum opulus*)

White flat bloom in early June followed by red berries which resemble cranberries and hang on thru the winter. Good green foliage all summer. Good, fall color. Ultimate height about 10 feet with a spread of 6 to 8 feet. Space 6 to 7 feet apart.

NANNYBERRY (*Viburnum lentago*)

Not inclined to be as bushy as other Viburnums. Grows more tree-like. Good green foliage all summer. Striking fall color. Generally not over one used in any, on small properties. White flat flowers early June followed by black berries. Ultimate height about 12 feet with a spread of about 6 feet. In groups space 6 to 7 feet apart.

SNOWBALL (*Viburnum opulus sterile*)

This is the common Snowball. Large double white blooms in May and June. Most showy flower of the Viburnums, with the least desirable foliage. If and when used on small properties, generally use only one in a border as a specimen. Ultimate height 8 to 12 feet with a spread of about 6 to 8 feet.

WAYFARINGBUSH (*Viburnum lantana*)

Also called Wayfaring tree. White flat flowers early June followed by red berries that then turn black. Shrub grows very compact. Large green leaves, underside silvery-green, with a beautiful Fall coloring and hanging on later than most shrubs. Height and spread 6 to 8 feet and spaced 6 to 7 feet apart.

WEIGELA, PINK (*Weigela, rosea*)

Fair foliage, pink flowers in May. Prefers protection from winter sun and winds. Usually maintained 4 to 6 feet high and wide and spaced 5 feet apart. Semi-hardy except for southern Nebraska & Kansas.

WEIGELA, BRISTOL RUBY (Pat. No. 492)

Fair foliage. Prefers protection from winter sun and wind. Usually maintained 4 to 6 feet high and spaced 5 feet apart. Semi-hardy except southern Nebraska and Kansas. A new variety. Crimson flowers June-July. Winter kills some here and more west and north. Recommend placing on east or north exposure. Do not crowd it.

DO NOT TAKE ORDERS FOR THESE SHRUBS**BUTTERFLYBUSH**

Freezes down like a herbaceous perennial in most of our territory.

REGEL PRIVET

Not hardy in most of our territory. Grows fair in Kansas and Missouri.

HONEYSUCKLE, TATARIAN

Bride Honeysuckle is an improved pink flowering Tatarian Honeysuckle

HONEYSUCKLE, MORROW

The foliage blights in most of our territory.

HONEYSUCKLE, WHITE BELLE

Grows too big for the average yard and we see no need for it when we have Bride and Zabel.

SPIREA, THUNBERG

Yellows in most of our territory. Very similar in appearance to Garland Spirea. Foliage a little more lighter green and a finer texture. Subject to chlorosis.

SUMAC, STAGHORN

We do not grow. We grow the Laceleaf Staghorn which we call Shredded Sumac.

WAHOO (Euonymus atropurpeua)

A plum-like tree. Large leaves. Can be furnished European Euonymus used instead for a shrub.

NOTE ON ALKALINE SOILS

As we travel west from the Missouri river we run into spots of alkaline soil. Within a few miles we can find varying degrees of alkalinity in soils, even on one property, occasionally to such an extent that practically all shrubs will show a yellow foliage. We call this chlorosis or we say the foliage is chlorotic.

In some instances an iron compound is placed in the soil to improve this condition. It is best to use shrubs that we have found to be the least chlorotic in such soils. Here is a preferred list:

VERY RESISTANT

French Lilac
Chinese Lilac
Buckthorn
Flowering Crabs
Peking Cotoneaster

PARTIALLY RESISTANT

Prunus Family
Cranberrybush
Wayfaringbush
Vanhoutte Spirea
Dwarf Ninebark
Golden Ninebark
Shredded Sumac
Siberian Peatree

DEFINITION OF MOIST SOIL

As we go west out of the rainfall area it is understood that artificial watering is necessary to maintain good plant growth. When we state that shrubs like a moist soil we mean that the particular plant is more susceptible than others to moisture deficiency in the soil.

We do not recommend watering any shrub more often than once a week and we do suggest that each watering should be enough to provide water to the very bottom roots.

HEDGES

Refer to variety description under trees or shrubs for further information. Close spacing for trimmed hedges provides quicker effects. It tends to hold down the growth of plants, and causes foliage to grow a finer texture. Close spacing of natural straight line or untrimmed hedges provides a quicker wall of green instead of a row of plants. Close planting prevents animals from running through the border.

BARBERRY, JAPANESE

Can be grown as a natural hedge -- maintained by one annual trimming in the winter to have a hedge 2 or 3 feet high. Space 1 foot apart. A sheared hedge may be maintained 1 foot to 3 feet high -- best trimmed with a rounded top. Space 6 inches apart if to be 1 foot or less high.

BUCKTHORN

Usually planted for a box hedge $2\frac{1}{2}$ to 4 feet high. Used mainly north and west of here, as it is very hardy. Space 1 foot apart.

COTONEASTER, PEKING

Grows anywhere in our territory. Usually planted for a trimmed box hedge 2 to 3 feet high. Very hardy. Stands semi-arid conditions. Space 1 foot apart.

HONEYSUCKLE, BRIDE

While this can be trimmed in box shape it is usually allowed to grow naturally for screening purposes and is best spaced 3 feet apart for such a wall of green or straight line border. Can be maintained 6 to 8 feet high by annual trimming.

HONEYSUCKLE, ZABEL

Same comment as for Bride, except that Zabel is more popular, especially for small properties.

LILAC, CHINESE

Outstanding for straight line borders. Space 3 feet apart.

NINEBARK, DWARF

For a box hedge usually 2 to $2\frac{1}{2}$ feet high. Space 1 foot apart. Will grow in any of our territory.

PRIVET, AMUR

For a box hedge usually 2 to $2\frac{1}{2}$ feet high. Space 1 foot apart. Occasionally for a low box hedge 12 inches -- when it is spaced 6 inches apart. Planted mainly here and south.

PRIVET, ENGLISH

For a box hedge usually 2 to $2\frac{1}{2}$ feet high. Used mainly Colorado and Kansas. Blights here where there is more moisture. Space 1 foot apart.

PRIVET, LODENSE

A dwarf European Privet that can be used for a low box hedge in Colorado, Wyoming and Western Nebraska.

SPIREA, FROEBEL

A low growing shrub for a low growing hedge. When sheared, usually round-topped. Generally not sheared and allowed to grow naturally with flowers, and cut down to the ground during the winter, while other plants have a better appearance for a hedge for most situations, there are cases where a hardy plant of this height is preferred.

PEONIES

Peonies require good soil. The subsoil should be kept moist and the topsoil cultivated or mulched. They should be planted in a well-drained bed and without depressions about the plant. Occasionally used sparingly as shrubs near the side and back foundations of houses. See pricelist for varieties. Space 3 to 4 feet apart.

IRIS

Plant several of one variety together in a group for an effective mass of bloom. Groups may be located against side or back foundations of houses and in front of shrubs. Groups of different varieties may be placed in one bed for a nice Iris display. Space 18 inches apart. See pricelist for varieties.

CUSHION MUMS AND OTHER HERBACEOUS PERENNIALS

We do not handle small plants such as strawberries and herbaceous perennials because they can not be shipped in the same manner as trees. Tree roots must be kept moist in shipment which is detrimental to most small plants which must be packed in material of slight moisture content.

We are willing to advise customers on what and how to plant herbaceous perennials -- also where they may secure them. (Peonies and Iris are the only perennials we grow.

PLANTIANLILY, BLUE (Hosta caerulea)

Grows about 18 inches high and wide. Very compact, good green foliage. Blue flowers in July-August. Prefers semi-shade. Space 18 to 24 inches apart.

GLADIOLUS

Place them in one bed in the yard. Not especially desirable for garden display but grown for their beautiful cut flowers. Often placed in the vegetable or separate flower garden. Plant in rows 6 inches apart -- 6 inches deep. Bulbs bloom approximately 90 days after planting. They should be dug as soon as the tops dry or at the time of the first frost -- and then stored. Store in naphthalene flakes in a cool dry cellar. The following Spring before planting the stored bulbs, soak in lysol solution for six hours. A solution of 4 table-spoons full of lysol to a gallon of water.

ROSES

The only roses we list that do not require winter protection are Austrian Copper, Grootendorst, Harrison's Yellow, Hugonis, and Snow-queen. For display in the yard the Floribunda roses listed under the Polyantha roses are gaining in popularity. The Hybrid Tea Roses are the everblooming roses most popular for cutting.

Many of the roses popular elsewhere in America do not thrive here. The picture and description of a rose in a magazine or eastern catalog may be interesting, yet the rose will not perform the same here. The Marshall Nurseries Five Year Test is a safeguard to our customers.

HYBRID TEA ROSES

Hardier varieties of roses have been crossed with Tea Roses and called Hybrid Tea Roses. We maintain a test grounds in Denver and Omaha in order to be up-to-date with the sturdiest and most productive varieties for our territory. They bloom the same season they are planted -- from June till frost. They should be planted in beds, spaced 18 to 24 inches apart, in the open yard free of tree and shrub roots. Excellent for cutting bouquets. The queen of flowers. See varieties listed in the Platebook and Pricelist. All require winter protection. Require spraying or dusting to keep healthy foliage.

POLYANTHA ROSES

For several years we handled the small-flowering Polyantha roses. We called them Baby Ramblers. Now we have the large-flowering Polyantha roses which are nicknamed Floribunda roses. Many people do not realize that the Floribunda are polyanthas -- improved varieties. They are particularly showy in beds in the yard. They bloom more profusely and more continuously than Hybrid Tea Roses. While some people like the flowers of some varieties of Polyanthas for bouquets, most people prefer H. T. Roses for this purpose. Place in beds and when possible use two or more rows in a bed for better show. Space 2 feet apart. Protect with a soil mound for winter, although they are more hardy than most H. T. varieties. See varieties listed in Platebook and Pricelist.

CLIMBING ROSES

Climbing roses are subject to winter killing in most of our territory. For protection they may be wrapped with burlap or paper. While you occasionally see a climbing rose growing good against the south or west side of a building, this is generally a hazardous position because of the quick and extreme changes in the temperature during the winter. An east wall is less hazardous. Fences or trellises in the open yard are preferred locations.

HYBRID PERPETUAL ROSE

Snow Queen (Frau Karl Druschki) is the only H. P. rose we handle. Large snow-white roses with some recurrent blooms afterward. Protect with a soil mound for winter. Hardier than H. T. Roses. Should not be planted in the same bed with H. T. Roses because of its sturdier growth. Space 2 to 3 feet apart. A real white, and large rose.

BUSH ROSES

Hardy and require no covering. Plant one variety alone or group three or more together. Space 4 to 5 feet apart-

AUSTRIAN COPPER

A coppery-yellow bush rose. Does better in western Nebraska and the mountain states. Blooms in June.

GROOTENDORST, F. J.

A hybrid Rugosa bush rose. Inherits the pretty glossy green foliage of the Rugosa family. A cross of Polyantha and Common Rugosa. Pretty light red baby-rambler like flowers with carnation-like edges borne in clusters from June until frost. We do not handle the pink variety. May be used singly, in groups, or for hedges. Requires trimming maintenance for better appearance and health. Grows 4 to 5 feet high, generally maintained 3 to 4 feet high and spaced 3 to 4 feet apart. Hardy. Does not require winter protection. Blooms first season.

HUGONIS ROSE (Rosa hugonis)

Often called Father Hugo Rose. Compact growing bush grows 5 to 6 feet high and wide, profusely laden with single yellow flowers in June. Hardy.

MULTIFLORA ROSE (Rosa multiflora)

Also called Japanese Rose and many-flowered rose, ultimate height 3 to 4 feet, spread 10 to 15 feet. A fountain with long, slender recurving branches. Texture medium-fine. Foliage light green in the Spring, modified to red-green with the old fruits, later whitened by the flowers; summer bright green; autumn foliage a light yellow. Blooms late Spring; small, single white flowers in large panicles, very numerous. Red fruit.

Used for natural plantings on banks and in gullies. Also for live protective stock fences. We do not recommend it for a live fence or hedge for home grounds. Semi-hardy western Nebraska, Colorado, Wyoming and the Dakotas.

GRUSS AN TEPLITZ

A Hybrid Bengal variety often listed as a Hybrid Tea. Grows almost as vigorous as a Hybrid Perpetual. Semi-double red roses in clusters in great profusion from Spring until frost. Best effect when several placed together in one bed for show.

Do not plant in H. T. beds. Grows 2 to 3 feet high and should be spaced 2 to 2½ feet apart. Requires a soil mound protection for winter. Blooms first season.

OTHER VARIETIES

The pricelist may contain a variety not listed herein. It is our intent to mention in the pricelist whether it is Bush, H. T., Polyantha, etc., and to note whether we have given it our five year test.

VINES

Space identical vines 4 to 6 feet apart. Different varieties 6 feet or more apart. Bank coverings can be spaced closer for quicker effect and to prevent erosion.

BITTERSWEET, AMERICAN (*Celastrus scandens*)

Excellent green foliage. Attractive clusters of fruit in the Fall, however several vines should be planted near each other for cross-pollination of flowers to insure fruit production. Berries make excellent winter bouquets. May be used on trellises, fences and banks.

CLEMATIS, SWEET AUTUMN (*Clematis paniculata*)

Rapid grower. Small white star-like flowers during late summer and early fall. Should be cut back each Spring. Good for trellises and arbors. A good vine.

CLEMATIS, JACKMAN (*Clematis jackmanni*)

Large purple flowers in the summer. Not easy to transplant so use good fine soil and plant carefully. When planted near the foundation of a building, the east side is preferable. Can be planted on trellises in the open. Place a board or stakes in the ground about it to protect it from damage from children or animals as the small vine is fragile and easily broken.

GRAPE, BETA (*Vitis: beta*)

A cross between a wild grape and Concord grape. Will grow into a fair size vine so may be used on windmills or to grow on tops of pergolas. Very good green foliage, fairly dense, which makes for good shade. Fruit is ornamental. Easily maintained by trimming for a vine for the ordinary trellis or fence.

IVY, BOSTON (*Parthenocissus tricuspidata*)

Three-lobed leaves. Colors in fall. It has discs instead of tendrils. Clings to stone or brick. Semi-hardy. Prefers east or north exposure. May freeze back on south and west walls. Our most popular Ivy.

CREEPER, VIRGINIA (*Parthenocissus quincifolia*)

Five-lobed leaves. Mass of green foliage which colors red and scarlet in the Fall. Has tendrils. Sometimes called Woodbine. Blue berries. Use on porches arbors and windmills. Hardy.

CREEPER, ENGLEMAN (*Parthenocissus quincifolia engelmanni*)

A variety of Virginia Creeper that has one difference; it has discs instead of tendrils, which adhere to stone and brick. Will thrive on any side of a building. Five-lobed leaves provide more foliage than the three-lobed leaves of the Boston Ivy. When ordering be sure customer does not expect to get Boston Ivy.

CREEPER, TRUMPET (*Bignonia radicans*)

Large, trumpet-shaped, orange flowers in August. Heavy green foliage, hardy, generally used on fences and trellises in the open yard. Often called Trumpet Vine.

HONEYSUCKLE, HALL (*Lonicera halliana*)

Excellent green foliage. Flowers white and yellow together. Blooms July to late fall and very fragrant. Semi-hardy. Use south and east of here. On trellises or for bank coverings.

HONEYSUCKLE, SCARLET TRUMPET (*Lonicera sempervirens*)

Scarlet flowers two inches long. An old reliable hardy vine for a trellis or lattice fences. Easy to grow for most locations. Sometimes called the Firecracker Honeysuckle.

HONEYSUCKLE, GOLDFLAME (Lonicera: goldflame)

An outstanding vine, excellent foliage. Showy clusters of large, fragrant trumpet-like flowers which are rose-flame outside and gold inside. Used for trellises, fences, arbors and ground cover. Very good. Will bloom the first year. Hardy. Easy to grow for most locations. A leader with us. Flowers abundantly from May to frost.

WINTERCREEPER (General description. See varieties below)

A family of broad-leaved evergreens. Grow slow. Will grow faster in semi-shade. Spacing depends on intended size and quickness of effect.

BIGLEAF WINTERCREEPER (Euonymus vegetus)

Will cling to stone or brick for a vine. May be grown as a viny shrub. Rich, almost evergreen leaves. Place where you hope for a shrub 3 to 4 feet high and wide.

COMMON WINTERCREEPER (Euonymus radicans)

Will cling to stone or brick for a vine. Sometimes called Evergreen Bittersweet. Has red berries.

GLOSSY WINTERCREEPER (Euonymus carrier)

Place where you hope for a shrub 2 to 4 feet high and wide.

PURPLELEAF WINTERCREEPER (Euonymus coloratus)

Evergreen foliage that turns bronzy-red in autumn. Excellent ground cover.

SILVERLACE VINE (Polygonum duberti)

Fast growing hardy vine. Often grows 10 feet the first season. Completely covered with small white flowers from mid-summer to late fall. Foliage glossy green. Correct common name is Silvervine Fleece Flower.

SMALL FRUIT AND PLANTS

Eat them fresh -- Can them -- Quick-freeze them.

ASPARAGUS

Paradise is the variety we grow. Extra large, many an inch or more through -- tender. Fine flavor. Rich in vitamins so essential to health. Do not require much room. Space 1 foot apart in rows 2½ feet apart or 1½ feet each way.

RHUBARB

Red McDonald is the variety we grow. Bright red skin with white flesh. It is 2 or 3 times larger than the common Rhubarb, far more tender and much sweeter. Seedless. Skin is so tender it needs no peeling. Does not require much room. Most orders are for a dozen or half dozen. Fine for sauce and pies. Space 3 feet apart each way.

GOOSEBERRIES

Excellent for sauce and pies. Requires very little room. Fruits second year. Space 4 feet apart. Sun or partial shade. Most orders are for a dozen or half dozen. We raise Carrie, which is green turning to red; and Poorman a green variety.

CURRENTS

Red Lake is the variety we raise. Large, glossy bright red berries; clusters are long and filled out to the end. Every home has room for some currant bushes. Requires very little room. Bears next year after planting. Very productive. Used for eating fresh, sauce, jelly, pies, jam, preserves and for freezing. Space 4 feet apart.

RASPBERRIES

Cumberland is grown some commercially here and southward. Red and purple raspberries do good north and west of here, but not so good south of here. All varieties need some protection here and north and west -- for best results. Excellent for eating fresh, can, preserve, freeze. Space 3 to 4 feet in row -- with rows 5 to 6 feet apart.

CUMBERLAND

Is a black-cap berry, an old favorite, bears in June. Fruits second year.

SODUS

Produces large purple-red berries, increasing in favor, bears in June. Heavy bearer. A cross of red and black raspberries.

SUNRISE

Produces red berries in June. An improved Latham.

INDIAN SUMMER

Fruits are red berries; fall cropper. Bears early summer then another crop on the new canes in the fall. The two crop raspberry.

BLACKBERRIES

Snyder is the variety we handle. Bears June. Space 3 to 4 ft. in row -- with rows 5 to 6 feet apart.

BOYSENBERRIES

Not hardy north and west of here and requires winter protection here. We do not handle the thornless variety. Space 6 feet apart. If more than one row, rows 6 to 8 feet apart.

GRAPES

For eating out of hand, and various culinary uses. Train them on three-wire fence with posts a rod apart. Space 6 to 8 feet apart in the rows and rows 6 feet apart.

BETA

Cross of Concord and wild Grape. Our hardiest Grape. Not recommended for eating fresh but excellent for jelly and wine.

BRIGHTON

A large red grape, for variety. Here and south and east.

CONCORD

Most popular blue-black grape. Recommended for eastern Nebraska, eastern Kansas and Iowa. Planted extensively in commercial vineyards in Omaha and Council Bluffs, and south of here.

MOORES EARLY

Blue-black grape, larger, sweeter and bears before Concord.

NIAGRA

White, medium size fruit.

PEAR

We handle only the regular standard growing tree pears and none of the dwarf pear varieties. Pears grow fair here and good south and east of us. Space 20 to 30 feet apart.

BARTLETT

We use Clapps Favorite, a seedling of Bartlett, which is of equal quality and tree is hardier.

CLAPPS FAVORITE

A seedling of Bartlett. Lemon color with brown dots. Hardier than Bartlett. Good for eating out of hand or cooking.

COPEES SEEDLESS

Resembles Bartlett and is practically seedless and coreless.

DOUGLAS

Hardiest pear in our list. Very productive. Bears early and regularly. Fruit is hard when picked in early November. Wrap in paper and store until ready for use in December. No sandy grit inside the fruit like the Kieffer Pear. Our hardiest variety. Blight resistant.

FLEMISH BEAUTY

Attractive, as name indicates, and of fair quality, but not now used, as other varieties are superior.

KIEFFER

Tree large and ornamental. Fruit fair to good for canning but very hard and has to be stored a while before canned. Discontinued.

LINCOLN

Large size, with often a beautiful blush to the sun; very juicy and high flavored. Bears early and abundantly in August. Good for eating out of the hand and for cooking.

SECKEL

Small pear, but good quality. A slow grower. Have no demand so do not use.

APRICOT

Trees are hardy, grow good, pretty green foliage, early attractive white blooms, which are often caught with frost here to give us only one or two crops of fruit every five years. Fruits better south. Space 12 to 20 feet apart.

CHINESE

Medium size Apricot. Best variety for most of our territory.

MONARCH

Large size Apricot. Best variety for southeastern Nebraska, southern Iowa, and south.

PLUMS

Today we have some superior quality plum fruits on trees hardy for our climate. Some plums bear the second year others the third year. They take up very little room. Plant several to ether for better pollination of the flowers. Plum trees are easily grown in all of our territory. Plum sauce and plum butter will be on the table if a customer has some of these plums. Space plums 12 to 20 feet apart with the exception of the bush plums Sapa and Opata, which space 8 to 12 feet apart. Standard varieties ripen forepart of August. Sapa and Opata late July.

COMPASS

Sand cherry -- wild plum cross. Good pollinizer, but discontinued for Sapa and Opata.

GREEN GAGE

Large, round greenish-yellow plum -- tender and sweet but not hardy enough in the middle west.

KAGA

An upright grower. Hardy. Has apricot blood in it. Good for eating and canning. Large apricot colored, with flesh. Perfect freestone. One of our leading varieties.

KAHINTA

Immense size, delicious quality, long keeping, beautiful color. Small pit and early bearing. A two inch -- two ounce plum. Very hardy. Originated by Prof. Hansen of South Dakota. Very good.

OPATA

A dwarf bush-tree. Part sand cherry. Recommend particularly for semi-arid regions. Small green to blue plum with green meat and small size pit. Space 8 to 12 feet apart. Makes excellent sauce.

OMAHA

Large plum, but discontinued because fruit rots on tree.

PIPESTONE

A Minnesota plum very large, red with a golden blush; flesh yellow. Midseason variety very hardy, heavier cropper. Fine for eating and canning. Bears very young. Very hardy.

PRUNE WEBER

Upright tree. Large blue skin with green meat and ordinary size seed. Not quite freestone, hardest prune we know. Grafted from tree here in Arlington.

REDCOAT

A Minnesota plum, trees very vigorous and hardy; bear young and extra heavy. Large bright crimson fruit. Freestone, stone falling out when the fruit is halved.

SAPA

A dwarf bush-tree. Originated by Prof. Hansen in South Dakota. Part sand cherry. Recommended particularly for semi-arid regions. Small reddish-blue plum with dark red meat and small pit or seed. Makes an excellent red colored, cherry flavored sauce. Space 8' to 12'.

STANLEY PRUNE

Large, dark-blue, with firm, sweet, delicious yellow-meated fruits. Free-stone. New. Hardy here and south.

SUPERIOR

Very large red plum with a rich sweet flavor. Bears early. Originated in Minnesota. Regular and heavy bearer, good to eat out of the hand, for sauce and plum butter. One of the better market plums. A good pollinator for other plums.

UNDERWOOD

Bears immense crops of large, rich red, delicious freestone plums. Excellent for eating fresh or cooked. An annual bearer.

PEACHES

Peach trees grow here but produce only about one crop out of five years. Nice to have a few if there is room after other sufficient dependable fruits have been planted. For southeastern Nebraska southern Iowa and eastern Kansas, peaches are a must. Bear fairly regular in the Denver area. Very good in parts of western Colorado. Space 15 to 20 feet apart.

CHAMPION

Large, skin is creamy white with red cheek, becoming quite red when ripe. Meat is white. Freestone most years. Ripens last of August. Is one of the hardiest varieties for here.

CRAWFORD

Freestone. Yellow meat. Have discontinued.

ELBERTA

This variety is an old favorite and so well known some people will not order varieties said to be improved. Large, yellow with blush. Flesh is yellow, firm, and freestone.

GOLDEN JUBILEE

Large freestone. Yellow flesh, new, good.

HALE HAVEN

Large yellow peaches of high quality. Generally recognized one of the finest peaches for quick-freezing. Freestone.

J. H. HALE

Very large. Ripens late. Yellow overlaid with gold. Yellow flesh. Freestone. Good.

MARQUETTE

Dwarf peach from Michigan. One of the hardiest for here. Medium size, red cheek, yellow flesh, freestone, very good.

POLLY

Originated by the Iowa Experiment Station. This variety is increasing in popularity as a peach for the home orchard. Large, blushed fruit, freestone. Flesh is white, a sweet peach taste. Excellent for sauce and preserves. One of the better varieties for the north edge of the peach territory. Heavy bearer.

CHERRIES

Our cherry trees are grafted on French Mahaleb roots and they will not sprout. Most every home grounds should have cherry trees. Space 15 to 20 feet apart. Eat fresh, for pies, cobblers, can, preserve, pickle, cherry cider.

EARLY RICHMOND

We have our own selected strain of Early Richmond. The first cherry to ripen here. The first cherry pie tastes wonderful. Good for canning.

ENGLISH MORELLO

Bears 2 to 3 weeks later than Montmorency. Fruit is large, almost black when fully ripe. Planted considerably in Wyoming and western Nebraska because of the late bloom.

MONTMORENCY

This cherry grows a denser top than Early Richmond. The fruit is a little larger and a darker red. Bears about ten days later than Early Richmond. Excellent for sauce and pies and for canning. Very popular. Apple pie, cherry pie and coconut-cream pie are the first three in America. Imagine a cherry pie with ice cream on it. The best all around variety for our territory.

NORTH STAR

New pie-cherry comparable to Montmorency in quality. Fruit somewhat smaller. Tree dwarf and heavy bearer.

WEST POINT

A large sweet cherry. Propagated from a tree in West Point, Nebraska which was brought from Germany. Recommended for here, South and east for variety.

YELLOW GLASS

A sweet yellow colored cherry. Moderate bearer. Good for sauce and for pickling. Recommended here, south and east -- add a few for variety.

APPLES

We have kept well posted on apples for this territory. We have a 50 acre commercial apple orchard. We obtain orders from commercial orchardists for trees. They know the value of Better Built Trees. No farm is complete without an orchard. Space 20 to 35 feet apart. An apple a day keeps the doctor away.

ANOKA

A variety formerly popular because of its early bearing qualities. Fruit, however, of poor quality. We have discontinued in favor of Prairie Spy which see.

BEACON

Large, solid bright red. Very hardy and extremely productive. Ripens in August. Better than Duchess. Bears young. Is increasing in favor in Minnesota and the Dakotas.

CORTLAND

A seedling of the McIntosh -- suggest Victory.

DELICIOUS, RED

Most everybody knows the Delicious. This is an improved more red colored Delicious. Not recommended north and west of here. Early winter variety. Good for eating out of hand and cooking.

DELICIOUS, YELLOW

A beautiful golden yellow apple, bears young, very productive. A mild apple anybody can eat. Also good for cooking. Popularity is increasing. Not recommended north and west of here. Early winter variety. Bears young.

DOLGO CRAB

A very hardy tree for any of our territory. Good size beautiful red crabapples. It bears young and regularly. Good for canning whole, for sauce or pickles, and for jelly. Showy white bloom. Every farm should have some Dolgo crabs.

DUCHESS, RED

A very hardy tree for any of our territory. Fair sized red striped apples but more solid color than the old Duchess. Ripens here in August, but makes excellent sauce and pies as early as June when only half grown. A good early and annual bearer. Summer variety.

FIRESIDE

A new super Delicious, hardy for north of here. Keeps all winter. The tree is large, vigorous and strongly branched. It bears annually and the fruit clings well. Apples are large, bright red, over a greenish-yellow background. Early winter variety. Good for eating out of hand and cooking.

GANO

Alleged to be a Ben Davis-Jonathan cross. Have discontinued. Suggest other winter varieties such as Prairie Spy or Haralson.

GRIMES GOLDEN

An old time yellow apple with a spicy flavor. Excellent for all uses. Keeps in storage until January. Not recommended for north and west territory. Early winter variety.

HARALSON

Recommend several of this variety to anyone any where in our territory. Very valuable addition for our north and west territory. Large bright red, juicy, apple. Bears heavy and abundantly, fruit keeps through the winter. A winter variety. Good for eating out of hand and cooking.

JONATHON, DARK RED

The Jonathon apple is a popular variety. This is an improved Jonathon -- with a more solid red color. Bears young and abundantly. Not recommended for north and west of here. Early winter variety. Outstanding for eating out of hand and cooking.

LODI

An improved Yellow Transparent. Color is a pale waxen yellow apple -- white inside. Very hardy for any of our territory. Early and annual bearer, fruit medium large. Ripens the last of July to the first part of August. A summer variety. Good for eating out of the hand.

MCINTOSH

A fall apple of good quality which has been discontinued in favor of Victory.

MINJON

A Minnesota Jonathon. Hardier than Jonathon and ripens earlier. Fruit is a dark brilliant red; bears abundantly; distributed evenly over the tree; hangs well until picked; eats and cooks well. Will grow and produce farther north and west in our territory than Jonathon.

MINNESOTA No. 790

Large, firm, dark red apple. Excellent for baking. Has the proper sugar content that holds its shape while being baked. Tastes well and makes excellent pies and sauce. Consistent cropper. Keeps better than most fall varieties.

NORTHWEST GREENING

An old variety for which we still have calls. A cooking apple particularly good for baking. A winter variety.

PRAIRIE SPY

Originated by Minnesota fruit breeding farm. It equals Jonathon in quality. Good red color, medium size and mid-winter keeper. Be sure to recommend this variety north and west of here. Excellent. Early winter variety. Good for eating out of hand and for cooking. Bears as early as Anoka.

REDWELL

Bears annually -- high quality -- very hardy. Solid red color and uniform size. Keeps until January. An improved Wealthy. Also a sturdy ornamental. No. 1 tree for any home. Good for sauce and pies. Increasing in popularity.

TURLEY

An apple of the Winesap strain which has been discontinued. Suggest Minnesota No. 790.

VICTORY

Better than McIntosh and Cortland. It is hardier, the fruit hangs better, keeps a month longer and cooks better in pies or baking. Hardy for any of our territory. Good for eating out of hand and for cooking.

WEALTHY

An old stand-by that is still one of the popular apples. Has a striped red color, large size and a juicy, sprightly flavor. Ripens in September, but can be used weeks earlier. Bears young and heavily. Very hardy -- keeps till January. It is being replaced by Redwell.

WHITNEY

An upright growing tree. Fruit is a large crabapple or a small apple. Fine for eating, sauce, preserves, jellies and it also makes a clear, tasty white cider. An iron clad for any of our territory. Bears young. Should be in every home orchard.

WINESAP

Medium size, dark red, juicy, mild apple. Recommended for south and east of here. A winter variety. Good keeper. Good for eating out of hand and cooking.

YELLOW TRANSPARENT

An old favorite early cooking and dessert apple which has been replaced by Lodi.

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